

National Weather Service - Elko

The Great Basin Spotter Newsletter



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FAST WEATHER FACTS

Blizzard Warning: Significant snowfall with winds or frequent gusts to 35 mph reducing visibilities to under 1/4 of a mile.

Heavy Snow Warning: For valleys, snowfall accumulating to 6 inches or more in 12 hours, or 8 inches or more in 24 hours. For mountains, snowfall accumulating to 8 inches or more in 12 hours, or 12 inches or more in 24 hours.

Snow Advisory: For valleys, snowfall accumulation of 3 to 6 inches in 12 hours, or 4 to 8 inches in 24 hours. For mountains, snowfall accumulation of 5 to 8 inches in 12 hours, or 7 to 12 inches in 24 hours.

Senator's Staff Visits Weather Office by Doug Cain, Lead Forecaster

This September, we were fortunate to have Andrea Wicker from U.S. Senator Harry Reid's staff visit our office. Andrea was given a complete tour of the office and shown how forecasts were prepared and warnings were issued. Andrea even sat at the radar and called up products used when analyzing severe storms! We are honored to have had such a distinguished guest visit our office. To set up your own tour, please contact Meteorologist in Charge Kevin Baker.

NWS Elko Presents July Open House by Paul Eyssautier, WCM

The NWS Forecast Office in Elko, Nevada held an Open House on July 7th, 2001. Approximately 50 people visited our office, including Kevin Kirkeby, the Rural Coordinator for Senator John Ensign. Our staff answered visitors' questions, and provided tours of our facilities. Included in one of the afternoon tours was the launch of our hydrogen filled balloon and our radiosonde instrument.

Our Open House visits are generally scheduled every two years. Individual visitors are always welcome to our office.

However, organizations should call us to schedule a tour in advance. Please contact Paul Eyssautier or Doug Cain at 775-778-6716. See you soon!



Words From the Meteorologist in Charge by Kevin Baker

I wish to thank all of our weather spotters and observers for providing weather information to our office during this past year. Your reports are always helpful, giving us data for verifying weather warnings and advisories, and providing forecasts.

Many of you are probably not aware of all the programs the National **Weather Service Forecast Office** (WFO) in Elko supports. We prepare public forecasts through our zone forecast product for most areas in northern and central Nevada. We serve several communities in our warning and forecast area including Winnemucca, Elko, Ely, Austin, Eureka, Wells, and Jackpot. Our zone forecasts are (CONTINUED ON PAGE 4)



School Talks by Doug Cain, Lead Forecaster



MIC Kevin Baker welcomes a group from Spring Creek High School.

One of the greatest opportunities in our job is teaching kids about weather and weather safety. Recently, 50 high school students from Spring Creek High School visited the Elko weather office and received a tour of our operations. This tour included a general weather presentation called **Meteorology 101**. We recognize that these students are the future of the National Weather Service and do everything we can to stimulate their interest in science and weather. In addition to hosting tours for



Peggy Duffy from Spring Creek High School visits with NWS staff.

school groups, we also give weather presentations at area schools. These presentations can cover a range of weather topics. If you would like to schedule a tour or a weather talk for grades 1st through 12th, please contact Doug Cain or Paul Eyssautier at 775-778-6716.

Changes To Our Web Page by Doug Cain, Lead Forecaster

Many people have yet to discover the world of weather information available at their fingertips. The latest local forecast, real time radar data, and the most recent satellite images are available on our homepage at www.wrh.noaa.gov/elko/. Recent additions to our homepage include a Kid's Page, a wind chill chart, and a glossary of weather terms. Several large changes to our homepage are in the works, including an easy to read forecast with weather icons called Weather To Go. This new product will allow users to see a 7 day forecast with just a glance. Check our site often to see the latest changes!

Winter Weather Preparedness by Jennifer Stroozas, Intern



Record Snow: 22 inches in 24 hours on January 24-25 1996

Northern Nevada's winter weather season is quickly approaching. Now is a good time to make sure you are prepared for any adverse winter conditions before the snowflakes begin to fall. Persistent storms bring a danger of potential loss of heat, power, telephone, and a shortage of supplies. It is a good idea to build a snow emergency kit to keep on hand just in case a storm hits your area. The first item to include is a battery operated NOAA weather radio in order to obtain the most current weather information. Other important items include a flashlight, extra batteries, non-perishable food, extra water, a first aid kit, and extra prescription medicine. Specifically for your home, keep an extra heat source such as a ceramic space heater or wood stove. Make sure all smoke detectors remain in working order, and keep a fire extinguisher in a convenient location. You should also carry an emergency kit in your vehicle. In addition to the items mentioned above, keep a small shovel along with sand or kitty litter

for traction in case you get stuck on the road. Since a heat source will not be available if stranded, carry an extra blanket, hat, gloves and scarf. Basic tools, a knife, tow rope, and jumper cables are also useful. Remember that traveling in winter conditions can become tricky very quickly. Always check road conditions. Do not drive if there is a risk of getting stranded. Check NOAA weather radio or our website, www.wrh.noaa.gov/elko/, for the latest weather information. Be safe this winter season by being prepared before the storm strikes!

Fire Season 2001 Review by Jim Wallmann, Journeyman Forecaster

The 2001 fire season continued the active period of the last two years as more than a half million acres burned across Nevada. The fire season began active in early July when several fires were started from dry lightning. However, these fires did not last long as a strong monsoon push the first full weekend of July brought heavy rains to the region and a brief break in active fires.

Fire season really picked up in late July and early August when isolated thunderstorms ignited several more fires. These fires were helped by the continued hot and dry conditions that lasted through August. The largest of the early August fires was the Sheep fire north of Battle Mountain which burned over 80,000 acres. The most active period though was mid August, marked by an intense dry lightning event on the 12th. On the 12th, between noon and 6 pm, well over 1,000 dry lightning strikes were recorded per hour with more than 10,000 strikes during the day. These strikes started 135 new fires which included the Clear Creek Complex and Buffalo Complex. The Western Great Basin Coordination Center in Reno reported that this event marked one of the greatest days of initial attack ever recorded. These fires burned the next week and eventually were contained within 10 days of ignition.

After mid August, the fire season quieted down with only a few fires reported in late August and early September. The notable fire during this period was the Shale fire which burned over 1,000 acres three miles north of Elko. After a storm brought welcome rain on the 12th of September, the fire season effectively came to an end with only a few small fires reported during this time.

Overall, it was a third consecutive active fire season across northern and central Nevada. Although the fire season was quiet most of the time, it was marked by one intense month with very high activity. Once September rolled around, the season began to quiet down with cooler temperatures and rain on the 12th.



Importance of Storm Spotters by Cliff Collins, Lead Forecaster

Storm spotters provide the National Weather Service office in Elko with valuable information that helps us perform our mission of issuing forecasts and warnings for the protection of life and property. The information spotters provide also helps us in verifying our warnings by providing ground truth that we cannot get in any other way. Even though we employ sophisticated technology like Doppler radar and satellites to monitor storms, we still need people on the ground to tell us if a certain storm is actually producing severe weather. This ground truth information also helps us in determining how strong a storm needs to look on radar before it will produce severe weather. Keep up the good work and remember your reports are very much appreciated.

Words from the MIC (Continued From Page 1)

issued a minimum of twice daily (3:30 am and 3:30 pm) with updates as needed. We also provide coded city forecasts, area forecast discussions, part of the state forecast, a recreational forecast for Great Basin National Park, and a weather synopsis product. All of these products are available at our Web site (www.wrh.noaa.gov/elko) or heard over NOAA Weather Radio from communities such as Elko, Ely, Winnemucca, and Eureka.

WFO Elko disseminates other products such as record temperature and precipitation event reports, climatological summaries, regional temperature products, and monthly precipitation summaries for many stations in northern and central Nevada. The office has an aviation and fire weather program. We create airport terminal forecasts for Winnemucca, Ely, and Elko, and write en-route forecasts for aircraft for the routes between Las Vegas and Elko, Reno and Elko, and Salt Lake City and Elko. Our fire weather forecasts are issued twice daily (7:30 am and 3:00 pm) during the fire season.

If you are interested in accessing any of the office products, please look over our Web Page as most of these products are available with a few clicks of a computer mouse. The Web site even has current satellite and radar imagery.

Many of you that have looked at our Web site have probably wondered why the radar image has lots of different colors during clear weather. The radar appears to have precipitation on it, but it is really picking up minute air particles. When dry conditions are occurring, the radar stays in clear air mode which makes it extremely sensitive to air particles. The radar beam reflects off these particles, and we see an image that contains lots of clutter. This information is actually useful to a forecaster because the Doppler radar converts the returned signal to a wind measurement above the surface. With this sensitive clear air mode information, we often know how the winds are changing aloft. If you have questions about any of the products on our Web Page, just give us a call at 775-778-6716 or email the Webmaster.

Thank you for continuing to support our mission of protecting lives, property, and the National economy through weather and water forecasts and services.

Kevin B. Baker
Meteorologist in Charge, Elko NV

Change to the Zone Forecast Format by Paul Eyssautier, WCM

You may have noticed a different look to our forecast if you visit our web page at <http://www.wrh.noaa.gov/elko>. We now have grouped together the one to seven day forecast. This is followed by the temperature and Probability-of-Precipitation (POP) forecast for selected cities of Northeast and East central Nevada.

Other changes are not quite as obvious. Our wind forecast is now issued for the first two days, and more detail is now provided in the third day of the forecast. We hope to provide you the best forecast possible on the third day, as we do on the first day of the forecast.

Currently, the selected cities temperature and POP forecast is for the first two days of the seven day forecast. Soon, we plan to expand this out to 3 days. We hope this will provide you a better idea of the forecast trend for your area of interest.

We are always interested in your comments or questions about our forecast products. You can e-mail us, or call 775-778-6716.

This Summer's Storms by Paul Eyssautier, Warning Coordinator Meteorologist (WCM)

During this past spring and summer, northeast Nevada did not experience its normal amount of thunderstorm activity. Still, we very much appreciate the calls and e-mail messages we received from you, our volunteer Severe Weather Spotters. Without your assistance our job would be much more difficult to accomplish.

This summer started off pretty tame with a few thunderstorms moving through northeast Nevada on April 28 producing wind gusts of 40 to 45 mph near Montello. Severe weather spotters Jim and Kelly Eveleth estimated wind gusts of 50 mph near Wendover with a thunderstorm. June was another quiet month, until June 22nd when thunderstorms moved through Eureka and White Pine counties. From our automated weather sensors in Eureka, wind gusts of 61 mph were observed with a thunderstorm. In Ely, wind gusts of 50 mph from a thunderstorm knocked a tree down, which in turn cracked a power pole in half. July was considerably more active with several reports of thunderstorm activity. The Miner's Club reported quarter inch hail with thunderstorms on July 5th. Mr. and Mrs. Secrist near Jackpot reported marble size hail on the same day and a heavy downpour, producing 0.8 inches of rain in 20 minutes. A few days later, on July 7th, thunderstorms produced heavy rain in White Pine County along with street flooding in Ely. On July 11th, spotters David Kearn, Georgian Stephens, Jeanie Mertens, and Jim Moser, in Humboldt County, all reported strong winds with thunderstorms. During the latter half of July through mid August, afternoon and evening thunderstorms produced strong wind gusts and frequent lightning. Many of you reported fire starts with lightning activity. We appreciate these reports very much since part of our responsibility is to provide fire weather forecasts and issue warnings for dry lightning events.



On Aug. 20th, thunderstorms once again developed in White Pine County. Severe Weather Spotter Charles Glendhill reported marble to dime size hail covering the ground. Heavy rain also accompanied this storm, forcing water over Hwy 93 a few miles south of Lages Junction.

Northeastern Nevada is a vast, mountainous region that our Doppler Radar beam cannot penetrate producing shadows of limited radar data. Also, the sparse population of Nevada limits the number of eyes that are available to observe and report weather conditions. Therefore, it is imperative that more people, like you, volunteer to help us spot thunderstorms, tornadoes, snow storms, heavy rain and flooding. If you have neighbors and friends that may be willing to help us out, ask them to contact us. We will provide a rain gauge, severe weather and spotter training guides, and a toll free number they may use to contact us when reporting significant weather events. We also can provide Weather Safety and Severe Weather Spotter Training Workshops in your community. This is a multi-media, two hour session presented by one of our forecasters. Barring any scheduling conflict we can present this training during the day or night, on weekdays or the weekend. Just let us know that you are interested, and we will help make the arrangements.

These are just a few examples of the many reports we receive from you, the volunteer Severe Weather Spotters of the National Weather Service. You, and the information you provide to us, are very important to us. Please do not hesitate to call because you're not sure if the weather you are observing is significant. All information has value. Even those reports that indicate very little activity help us determine the strength and position of storms we are tracking. For further information contact Paul Eyssautier at 775-778-6716, or click on the Weather Spotter Info button at the bottom of our web page.

Many people have not stopped to think where weather forecasts come from. The National Weather Service is an organization made up of 120 offices preparing forecasts and warnings for people of the United States. The office for Northeast Nevada is located in Elko. The Elko office has a staff of 22 dedicated employees working around the clock to make sure the latest weather information is available to the media and the general public. All forecasts and warnings are provided as a free service. To check the latest weather information, turn on NOAA Weather Radio, or on the web, type in www.wrh.noaa.gov/elko.



Area Precipitation Table

Cities	Rainfall from 1/1/01 - 10/31/01	Normal Rainfall as of 10/31/01	Departure from Normal
Elko, NV	5.51 Inches	7.69 Inches	-2.18 Inches
Reno, NV	1.69 Inches	5.65 Inches	-3.96 Inches
Las Vegas, NV	3.77 Inches	3.31 Inches	+0.46 Inches
Salt Lake City, UT	9.93 Inches	13.45 Inches	-3.52 Inches
Boise, ID	5.84 Inches	9.27 Inches	-3.43 Inches
Pocatello, ID	5.19 Inches	9.84 Inches	-4.65 Inches

